ARC Digitized Raster Graphics (ADRG)

US Army Corps of Engineers®
Engineer Research and Development Center

Description and Background

ADRG is a standard National Geospatial-Intelligence Agency (NGA) digital product designed to support applications that require a raster map background display. Paper maps and charts are converted into digital format by raster scanning and transforming the data into the Equal Arc-Second Raster Chart/Map (ARC) system frame of reference. Data collected from a single map/chart series and scale are maintained as a worldwide seamless database of raster graphic data, with each pixel having a distinct geographic location. Topographic Line Maps (TLM) 50 meet Army tactical requirements. Joint Operations Graphics (JOG) meet the Army planning requirements.

Key Capabilities

Color Resolution: In producing ADRG, the maps/charts are scanned at high-resolution (254 dots per inch) and recorded at 24 bits per pixel red, green and blue (RGB).

Content: ADRG consists of the following standard hard-copy products: 1:5,000,000-scale Global Navigation and Planning Charts (GNC), 1:2,000,000-scale Jet Navigation Charts (JNC), 1:1,000,000-scale Operational Navigation Charts (ONC), 1:500,000-scale Tactical Pilotage Charts (TPC), 1:250,000-scale JOG, 1:100,000-scale and 1:50,000-scale TLM, City Graphics, Combat Charts and Nautical Charts.

Structure and Format: ADRG uses ISO 8211 data format.

Coordinate Reference System: The geographic coordinates are referenced to the World Geodetic System 1984. The ADRG product specifications provide the capability to compute coordinates in the chart/map local datum.

Media: Distributed media is CD-ROM, implementing the ISO 9660 volume and file standard.

Standard File Size: Although there is no standard file size, a map/chart may require 75 megabytes of storage space. Typically, ADRG is preprocessed (compressed) to accommodate specific user software applications and hardware platforms.

Accuracy: Same as hard-copy map/chart products.

Current Status

Except for currently fielded systems that explicitly require ADRG, NGA no longer supports this product.

Point of Contact

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